

Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: FAIL-SAFE

Report Number: P560591

Luminaire Tested: FSR-12-2-LD4-2STD-35-UNV-81-97-EDD

Issue Date: 7/20/2021

Test Information

Test Method: LM-79-2019
Report Number: P560591
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2102-135-5)
Test Lab: INNOVATION CENTER
Issue Date: 7/20/2021
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: FAIL-SAFE
Catalog Number: FSR-12-2-LD4-2STD-35-UNV-81-97-EDD
Description: 1X2 FSR TROFFER WITH .156 CLEAR PC FIXTURE SIDE AND .375 CLEAR TEMPERED GLASS ENVIRONMENTAL SIDE LENSES WITH, 80 CRI AND 3500K CCT LEDS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2770.0 lumens
Efficiency: N/A
Efficacy: 83.2 lumens/watt
Spacing Criteria (0/90/45): 1.1 / 1 / 1.15
Luminous Opening: Rectangular (W 1' x L: 2' x H: 0')
CIE Type: Direct

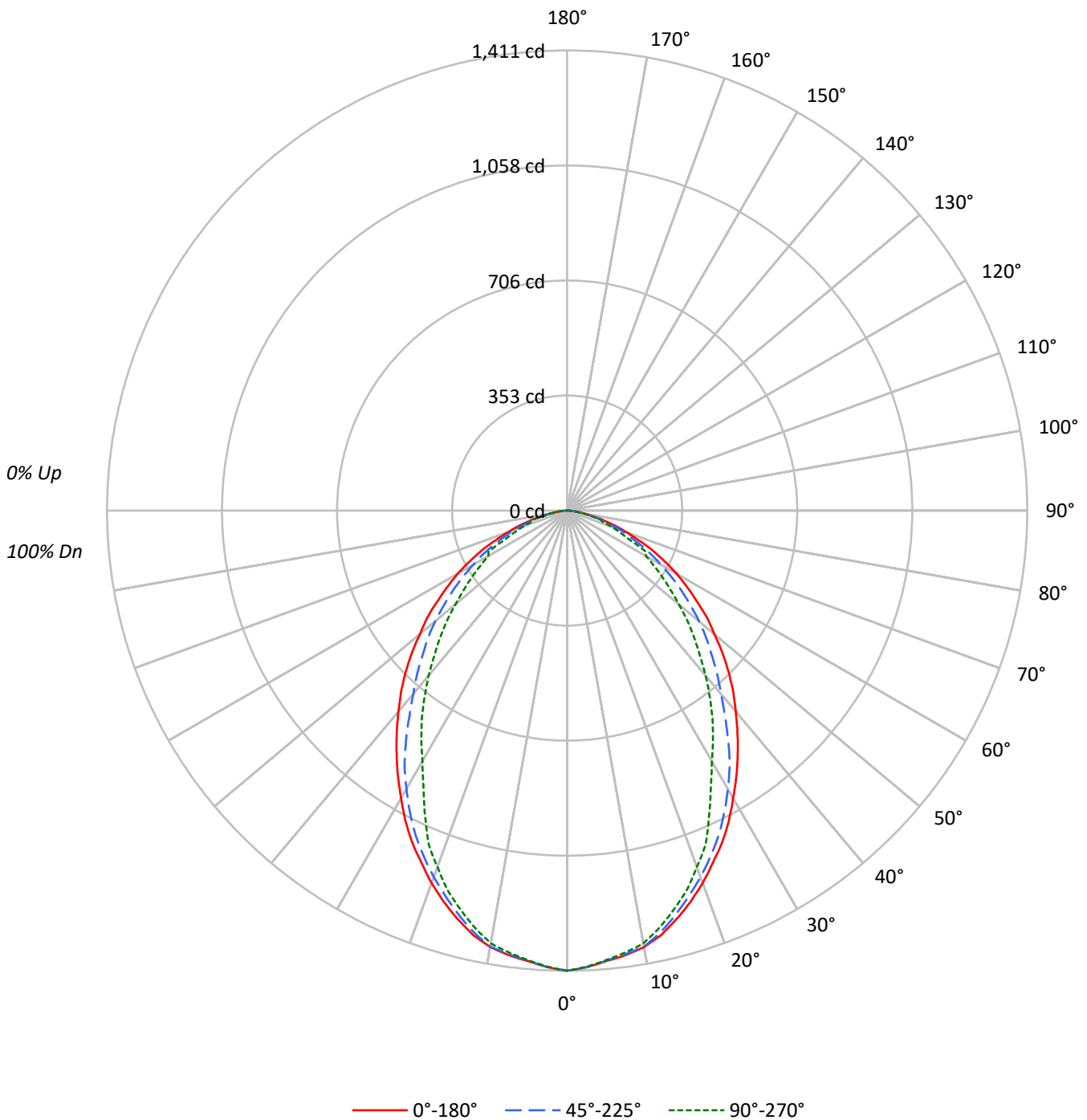
Input Watts (W): 33.3
Input Voltage (V):
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20
RC	80				70				50				30				10
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	110	106	102	99	108	104	100	97	100	97	94	96	94	91	92	90	89
2	101	94	88	83	99	92	87	82	89	84	80	86	82	78	83	79	77
3	93	84	77	71	91	82	76	70	79	74	69	77	72	68	74	70	67
4	86	75	67	61	84	74	66	61	72	65	60	69	64	59	67	62	58
5	80	68	60	54	78	67	59	53	65	58	53	63	57	52	61	56	52
6	74	62	53	48	72	61	53	47	59	52	47	57	51	47	56	50	46
7	69	56	48	43	67	56	48	42	54	47	42	53	46	42	51	46	42
8	65	52	44	38	63	51	44	38	50	43	38	49	42	38	48	42	38
9	61	48	40	35	59	47	40	35	46	39	35	45	39	34	44	38	34
10	57	44	37	32	56	44	37	32	43	36	32	42	36	32	41	36	32

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	7594	7594	7594
5°	7491	7482	7473
10°	7426	7417	7364
15°	7226	7153	7053
20°	6960	6848	6661
25°	6674	6529	6122
30°	6326	6123	5515
35°	5991	5659	5102
40°	5650	5157	4641
45°	5326	4768	4197
50°	4931	4425	3743
55°	4561	4010	3352
60°	4179	3582	3002
65°	3677	3137	2659
70°	3029	2746	2258
75°	2408	2102	2204
80°	1618	1516	1416
85°	1007	1210	1408

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 0°
 Vertical Angle: 45°
 Luminance: 5326 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	131.3	4.7
10°-20°	360.5	13.0
20°-30°	499.0	18.0
30°-40°	532.1	19.2
40°-50°	485.5	17.5
50°-60°	380.3	13.7
60°-70°	247.9	8.9
70°-80°	109.8	4.0
80°-90°	23.6	0.9
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	990.9	35.8
0°-40°	1523.0	55.0
0°-60°	2388.7	86.2
0°-90°	2770.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2770.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1411	1411	1411	1411	1411	
5°	1386	1385	1385	1383	1383	132
15°	1297	1297	1284	1271	1266	365
25°	1124	1117	1099	1060	1031	516
35°	912	905	861	796	776	570
45°	700	685	626	574	551	539
55°	486	471	427	377	357	436
65°	289	272	246	251	209	285
75°	116	108	101	96	106	124
85°	16	18	20	21	23	23
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1411.0	1411.0	1411.0	1411.0	1411.0
2.5°	1401.2	1401.2	1401.2	1399.6	1399.6
5°	1386.5	1384.9	1384.9	1383.3	1383.3
7.5°	1375.1	1373.5	1371.9	1370.2	1367.0
10°	1358.8	1358.8	1357.2	1349.0	1347.4
12.5°	1332.7	1331.1	1324.5	1313.1	1309.9
15°	1296.8	1296.8	1283.8	1270.7	1265.8
17.5°	1257.7	1256.0	1239.7	1226.7	1220.1
20°	1215.3	1212.0	1195.7	1174.5	1163.1
22.5°	1167.9	1167.9	1148.4	1120.6	1109.2
25°	1123.9	1117.4	1099.4	1060.3	1030.9
27.5°	1073.3	1063.6	1044.0	988.5	954.3
30°	1017.9	1013.0	985.3	913.5	887.4
32.5°	965.7	957.5	928.2	853.1	831.9
35°	911.8	905.3	861.3	796.0	776.5
37.5°	858.0	849.9	794.4	742.2	717.7
40°	804.2	794.4	734.0	686.7	660.6
42.5°	753.6	740.6	681.8	631.3	601.9
45°	699.8	685.1	626.4	574.2	551.4
47.5°	646.0	632.9	579.1	525.3	499.2
50°	588.9	577.5	528.5	474.7	447.0
52.5°	541.6	523.6	476.3	422.5	399.6
55°	486.1	471.4	427.4	376.8	357.2
57.5°	435.5	420.9	380.1	332.8	316.5
60°	388.2	367.0	332.8	292.0	278.9
62.5°	336.0	319.7	290.4	256.1	272.4
65°	288.7	272.4	246.3	251.2	208.8
67.5°	236.5	228.4	205.5	182.7	176.2
70°	192.5	182.7	174.5	150.1	143.5
72.5°	153.3	143.5	132.1	119.1	114.2
75°	115.8	107.7	101.1	96.2	106.0
77.5°	79.9	76.7	71.8	66.9	65.2
80°	52.2	50.6	48.9	47.3	45.7
82.5°	31.0	31.0	31.0	31.0	31.0
85°	16.3	17.9	19.6	21.2	22.8
87.5°	9.8	9.8	11.4	13.0	14.7
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)